

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION RC-375

Effective Date: May 1, 2013

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **May 2017**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

29 Gauge AG Metal Roofing Panels manufactured by

General Shelters of Texas
1767 CR 1000
Center, Texas 75935
(936) 598-1426

is acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The AG panel is manufactured from minimum 29 gauge galvalume steel with an optional paint finish. The minimum 29 gauge metal roofing panels have an actual coverage of 36". Each metal roofing panel has ribs that are $\frac{3}{4}$ " deep and spaced 9" o.c. The metal roofing panels conform to ASTM A792 with a minimum yield strength of 80,000 psi.

LIMITATIONS

Design Wind Pressure: For installation of the AG metal roof panels to nominal $\frac{15}{32}$ inch plywood panel decks, design wind pressure limitations are specified in Table 1.

Roof Deck: The roof deck shall be minimum nominal $\frac{15}{32}$ inch plywood.

Roof Deck Attachment: The roof deck shall be secured to the roof framing to resist the required design pressures.

Installation Over an Existing Roof Covering: Installation over an existing roof covering is limited to a maximum of one existing layer of composition shingles, wood shingles or shakes, built-up roofing, or roll roofing. The thickness of the plywood deck shall comply with the requirements of this evaluation report. Note: Inspection of the existing roof deck must be made before installing the roof panels. The condition of the existing roof deck must be acceptable to receive the roof panels before the roof panel installation can proceed.

Roof Slope: The AG roof panels may be installed on roof slopes as low as $\frac{1}{2}$:12 if sealant is used on the panel side laps. If sealant is not used on panel side laps, then the minimum roof slope is 3:12.

INSTALLATION INSTRUCTIONS

General Installation Requirements: The metal roofing panels shall be installed in accordance with the manufacturer's installation instructions and this evaluation report.

Panels: Panels shall be attached to the roof deck in accordance with Table 1.

Table 1

Attachment of minimum 29 gauge AG roofing panels to nominal $\frac{15}{32}$ inch plywood panel deck:

Design Wind Pressure	Panel Fastener Pattern	Panel Fastener Spacing
-71 psf	9"-9"-9"-9"	24" on center
-123.5 psf	6"-3"-6"-3"-6"-3"-6"	24" on center

Underlayment: Minimum one layer of No. 30 (Type II) asphalt felt shall be used. The underlayment used shall comply with ASTM D 226, ASTM D 4869, or ASTM D 1970. The underlayment shall be applied with corrosion resistant fasteners in accordance with manufacturer's installation instructions. Fasteners shall be applied along the overlaps not farther apart than 36 inches on center.

Attachment of Metal Roof Panels to the Roof Deck: The metal roofing panels shall be secured to the roof substrate as follows:

Roofing Panels to Wood Deck: The AG roof panels shall be secured to the plywood deck in accordance with Table 1 with minimum No. 10 x 1 inch Kwikseal II Woodbinder screws, manufactured by Sealtite, with sealing washer. If the panels are laid directly over an existing roof covering, then the fasteners shall be long enough to penetrate completely through the wood structural panels with a minimum penetration of $\frac{1}{4}$ inch below the underside of the wood structural panel roof deck.

Panel Ends: The panel ends shall be secured with minimum No. 10 x 1 inch Kwikseal II Woodbinder screws, with sealing washer at 6"-3"-6"-3"-6"-3"-6" fastener pattern. The fasteners shall be long enough to ensure a minimum penetration of $\frac{1}{4}$ inch below the underside of the wood structural panel roof deck.

Trims, Closures and Accessories: Components such as the eave trim, rake trim, ridge trim, hip trim and valley trim shall be installed in accordance with the manufacturer's installation instructions.

Alternative Fasteners: Substitution of equivalent fasteners shall meet the following requirements:

No. 10 x 1 inch Kwikseal II Woodbinder screws, manufactured by Sealtite.

- Ultimate withdrawal (pullout) \geq 400 lbs. in $\frac{15}{32}$ inch plywood

Note: The manufacturer's installation instructions shall be on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.